REMARKS/ARGUMENTS

Upon entry of the present Amendment, claims 14, 15, 19, and 23 will have been amended, and claims 16, 20, and 24 canceled. By the present Amendment and Remarks, Applicant respectfully submits that that the rejections have been overcome, and respectfully requests reconsideration of the June 14, 2007 Final Office Action and allowance of the present application at the Examiner's earliest convenience.

Pending Claims

Claims 7-9, and 14-15, 17-19, 21-23, 25-26 are pending in the application. Of these claims, claims 14, 15, 19, and 23 are independent claims and the remaining claims are dependent claims.

Summary of the Official Office Action

Summary of Rejections

Claims 7-9 and 14-26 were rejected as being unpatentable over Silverbrook et al. (US PGPUB 2002/0080396) in view of Tan et al. (US 6,613,403) [hereinafter referred to as Tan].

Traversal of Rejection under 35 U.S.C. 103(a)

Applicant respectfully traverses the rejection of claims 7-9 and 14-26 as being unpatentable over Silverbrook in view of Tan.

In lieu of the present Amendment, claims 16, 20, and 24 have been canceled, thus the rejection of these claims is now moot. As such, Applicant respectfully requests the rejection of claims 16, 20, and 24 be withdrawn.

Turning to the specific claim language of the present application, amended independent claim 14 is directed to a recording apparatus for forming an image on a recording medium comprising a recording unit for performing recording by applying a recording material onto the recording medium, the recording unit recording the image and at least one of a positional information image representing positional information corresponding to the position where the positional information image is recorded, wherein the positional information image is expressed by a combination pattern of a plurality of spots, provided at intervals of 0.3mm, to represent the positional information, and a control unit for controlling the recording such that the recording unit records the positional information image with a recording material capable of being detected by a predetermined detector and records the image with another recording material incapable of being detected by the detector, wherein the recording material used for recording the positional information is a carbon black and wherein the recording material used for recording the image is a carbon-free yellow, a carbon-free magenta, and a carbon-free cyan.

Applicant respectfully submits that Silverbrook fails to disclose at least the above-noted features of the present invention.

Silverbrook is seen to describe a system for producing interface surfaces ("netpages") which allow users to interact with networked information and to obtain interactive printed matter. More specifically, a "netpage" consists of a printed page (or

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other surface region) invisibly tagged with references (i.e., tags) to an online description

of the page. The tags may be printed on or into the surface of the page, may be in or on a

sub-layer of the page or may be otherwise incorporated into the page. The online page

description is maintained persistently by a netpage page server. The page description

describes the visible layout and content of the page, including text, graphics and images.

It also describes the input elements on the page, including buttons, hyperlinks, and input

fields. A netpage allows markings made with a netpage pen on its surface to be

simultaneously captured and processed by the netpage system (paragraph 0148).

Tags are printed in infrared-absorptive black ink on any substrate which is

infrared-reflective, such as ordinary paper (paragraph 0151). A tag is sensed by an area

image sensor in the netpage pen, decoded and the data encoded by the tag is transmitted

to the netpage system, preferably via the nearest netpage printer. The pen recognizes the

tag and extracts the page ID and position on every interaction with the page. (paragraph

0152).

According to Silverbrook, in the preferred form of the invention, each tag

identifies the region in which it appears, and the location of that tag within the region. A

tag may also contain flags which relate to the region as a whole or to the tag. One or more

flag bits may, for example, signal a tag sensing device to provide feedback indicative of a

function associated with the immediate area of the tag, without the sensing device having

to refer to a description of the region. (paragraph 0155).

Decoding a tag results in a region ID, a tag ID, and a tag-relative pen transform.

Before the tag ID and the tag-relative pen location can be translated into an absolute

location within the tagged region, the location of the tag within the region must be

known. This is given by a tag map, where each tag ID in a tagged region is mapped to a

corresponding function. A tag map reflects the scheme used to tile the surface region with

tags. The tag map for a region must be retrievable via the region ID. Thus, given a region

ID, a tag ID, and a pen transform, the tag map can be retrieved, the tag ID can be

translated into an absolute tag location within the region, and the tag-relative pen location

can be added to the tag location to yield an absolute pen location within the region

(paragraphs 0193-0195).

A location-indicating tag contains a tag ID which, when translated through the tag

map associated with the tagged region, yields a unique tag location with the region. The

tag-relative position of the pen is added to this tag location to yield the location of the pen

within the region. This in turn is used to determine the location of the pen relative to a

user interface element in the page description associated with the region. The user

interface element is identified, as well as a location relative to the user interface element.

Location-identifying tags therefore trivially support the capture of an absolute pen path in

the zone of a particular user interface element. (0198)

According to Silverbrook, in the preferred form of the invention, the tag map is

associated with each page instance to allow tags on the page to be translated into

locations on the page. (0209).

As discussed above, the location of a tag within a region must be known and is

done so through the use of a tag map, where each tag ID in a tagged region is mapped to

a corresponding function. Given the fact that the Silverbrook invention requires that the

location of a tag within a region must be known, and requires a map to do, the idea of

arbitrarily recording tags on a page appears to be inconsistent with the implementation required for the Silverbrook invention to work as described.

Silverbrook also describes a printer capable of recording with cyan, magenta, yellow, black, and IR black recording material [0243].

As the above referenced sections of Silverbrook illustrate, Silverbrook discloses the structure to detect a tag, printed on a recording medium with invisible ink, by a sensor on a pen. The position on the surface of the recording medium can be determined by reading the tag using the pen. The disclosed tag comprises at least 90 bits of region ID (paragraph 0158), which itself shows the position on the recording medium. In other words, encoded information showing the position on the recording medium is already included in the tag. In order to make use of the tag to yield an absolute position of the pen within a region, a tag map mapping each tag ID in a tagged region to a corresponding location is required.

Nothing in Silverbrook is seen to describe recording a positional information image, wherein the positional information is recorded on a recording medium. More specifically, nothing in Silverbrook is seen to describe at least the present invention's feature of expressing the positional information image by a combination pattern of a plurality of spots, provided at intervals of 0.3 mm, to represent the positional information.

Nothing in Silverbrook is seen to indicate that an individual tag or combination of tags forms or form a positional information image. In other words, there is nothing in Silverbrook to suggest that the tags form an image representing positional information on the recording medium when the tags are recorded on the recording medium.

Applicant also respectfully submits that Tan fails to disclose at least the above-noted features of the present invention. As stated in the Summary of the Invention section of Tan, the general object of Tan is to prolong the useful life of near infrared florescent compounds in print media to provide security features, sense marks, and data images which are invisible to the human eye. Nothing in Tan is seen to disclose or describe the present invention's features of recording positional information image and image data, ٍwherein the positional information image is expressed by a combination pattern of a plurality of spots, provided at intervals of 0.3mm, to represent the positional information.

Because both Silverbrook and Tan lack at least the above-noted features of the present invention, Applicant submits that the referenced art fails to support a rejection of claim 14. Therefore, Applicant submits that the rejection of claim 14 is improper and respectfully requests that the rejection be withdrawn.

Furthermore, Applicant submits that claims 7, 8, and 9, which depend from claim 14 are allowable at least for the reason that these claims depend from allowable base claim 14 and recite additional features that further define the present invention.

Independent claims 15, 19, and 23 have been amended in a similar manner as claim 14. As such, the arguments set forth above with respect to claim 14 are applicable to each of these claims. Therefore, Applicant submits that the rejection of claims 15, 19, and 23 are improper and respectfully requests that the rejections be withdrawn.

Claims 17, 18, 21, 22, 25, and 26 depend from one of claims 15, 19, and 23 respectfully. Thus, Applicant submits that these claims are allowable for the reason that they all depend from one of allowable base claims 15, 19, 23 respectfully, and recite

additional features that further define the invention.

CONCLUSION

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability, and respectfully requests the Examiner to indicate the allowance of such claims as the Examiner's earliest convenience.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein is respectfully requested and now believed to be appropriate.

If any additional fees are required as result of the present Amendment, the Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Applicant's USPTO Deposit Account number **502456**.

Applicants' undersigned attorney may be reached at (949) 932-3329. All correspondences should be directed to the below-listed address.

Respectfully submitted,

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